



# Memorandum

**TO:** HONORABLE MAYOR AND  
CITY COUNCIL

**FROM:** James R. Helmer

**SUBJECT: TRANSPORTATION MAINTENANCE  
BACKLOG REDUCTION STRATEGY**

**DATE:** 05-22-06

---

Approved

/s/

Date 05/24/06

---

## **RECOMENDATION**

Approve the following strategy to reduce the backlog of transportation infrastructure needs:

1. Allocate \$5.3 million in the Transportation Infrastructure Maintenance Backlog Reserve for street resurfacing (\$3 million), transportation safety enhancements (\$1.8 million), and improved neighborhood appearance (\$0.5 million).
2. Continue advocacy for increased regional funding for local pavement maintenance from Federal, State, Regional (MTC), and County sources.
3. Allocate \$200,000 proposed in the 2007-2011 Traffic Capital Improvement Program to prepare a local Transportation Infrastructure Maintenance Needs Master Plan to identify community priorities and preferred funding options for rehabilitating the City's transportation system.

## **BACKGROUND**

Due to the City's long term fiscal challenges over the years, investment in the City's surface transportation system has not been adequate, particularly in cost effective preventive maintenance. As a result, the condition of the City's surface transportation system is in serious decline. While the inventory of assets has grown almost 12% in the last five years, the staffing resources to maintain those assets has declined almost 13%, and current resources are insufficient to adequately maintain, operate, and improve the system in accordance with City goals and community expectations. A 2005 report to the Building Better Transportation (BBT) Committee, estimated a \$370 million need for one-time infrastructure rehabilitation and capital improvement. The ongoing annual operating and maintenance shortfall is projected between \$18 million and \$25 million over the next 5 years. Attachment A further details the backlog of deferred transportation infrastructure maintenance.

The transportation infrastructure funding issue was discussed in recent City Council Budget Study Sessions, as several Councilmembers expressed concern over funding shortfalls and posed questions related to strategies to deal with the issue over the short and long term. The issue has been actively discussed at the BBT Committee over the past 18 months, with direction being given in April 2006 to initiate a Transportation Infrastructure Needs Master Plan, which is to include community outreach and priorities. In the immediate future, the proposed allocation of \$5.3 million in one-time funding is a critical, and much needed first step towards addressing one-time infrastructure rehabilitation and capital improvement needs.

## **ANALYSIS**

### **Short Term Strategy – Transportation Infrastructure Maintenance Backlog Reserve for 2006-2007**

The majority of the \$5.3 million investment is proposed for pavement maintenance, where the City has the greatest need, and investments avoid much more costly future repairs. Funding is also proposed to address safety-related transportation issues as well as the appearance of our neighborhoods. In summary, the staff recommendation for the most effective way to allocate this funding is described below. A more detailed discussion is included in Attachment B.

### **Transportation Infrastructure Maintenance Backlog Reserve - Investment Plan**

|   |                    |
|---|--------------------|
| <b>FUTURE COST AVOIDANCE</b>  |                    |
| <b>Pavement Maintenance</b> – Resurfaces approximately 9 miles of streets in poor condition to avoid further deterioration and more costly future repair. | <b>\$3,000,000</b> |
| <b>SAFETY ENHANCEMENTS</b>  |                    |
| <b>New Traffic Signals</b> – Improves intersections with the highest crash rates.   | <b>\$700,000</b>   |
| <b>Traffic Signal Modifications</b> – Improves intersections with the highest crash rates, without increasing maintenance and operating costs.            | <b>\$650,000</b>   |
| <b>Closing Sidewalk Gaps</b> – Builds sidewalks in several needed areas, including school walking routes.   | <b>\$450,000</b>   |
| <b>NEIGHBORHOOD APPEARANCE</b>  |                    |
| <b>Seasonal Streetlight Outage Repairs</b> – Winter streetlight outage repairs will be made in a timelier manner, improving neighborhood livability.      | <b>\$100,000</b>   |
| <b>Landscape Renovations</b> – Renovations of overgrown and maintenance-intensive properties will improve landscape condition and reduce costs.           | <b>\$300,000</b>   |
| <b>Street Tree Infill</b> – Replacing missing street trees will improve aesthetics and continue to develop the urban forest.                              | <b>\$100,000</b>   |
| <b>TOTAL</b>  | <b>\$5,300,000</b> |

### **Long Term Strategy – Address the Structural Needs and Funding Gap**

After significant review of the transportation infrastructure condition and discussion on the funding shortfall issue, the key conclusions of the BBT Committee are that greater investment is needed at the regional and local levels.

#### **Advocacy for Increased Regional Funding**

On a regional level, policy advocacy by the City and other agencies is producing positive results:

- The Metropolitan Transportation Commission (MTC) is allocating more of the federal gas tax funds to cities for pavement maintenance, and in the next two years, the City should receive \$11 million in federal grants. The funding is required to be used for specific federal aid-eligible streets that require resurfacing.
- The State is proposing to pay back transportation funds taken from cities, so the City expects to get \$4 million for pavement maintenance in 2006-2007. The funding would be used to increase the number of miles of streets receiving a preventive surface seal, thus reducing the shortage of street miles due for preventive maintenance that would not have received a treatment.
- The State Transportation Infrastructure Bond Program (STIP) on the ballot for this November, if approved, would provide \$30 million in one-time funds to San José that could be used for pavement maintenance. Staff will provide the City Council with additional information on proposed uses, as requested, in the August/September timeframe.
- Santa Clara County has decided to move forward with a countywide ½ cent General Purpose Sales Tax on the June ballot, which may provide funding for transportation maintenance.
- A State Senate bill currently under consideration would allow counties to seek voter support for a \$25 vehicle registration fee that would go for local transportation maintenance.

Nonetheless, even with all of these regional efforts combined, it is estimated that only a fraction of the City's current backlog of needs can be addressed by regional sources. Further steps need to be taken to address the ongoing and one-time funding shortfalls.

#### **Exploration of Options for Increased Local Transportation Funding**

In April 2006, the BBT Committee approved initiating a local Transportation Infrastructure Needs Master Plan, including community outreach related to specific transportation priorities and levels of support to fund transportation priorities and maintenance needs. It is expected that this Master Plan project will identify the level of community support for local funding options to close the funding gap in transportation maintenance and operations.

The cost to prepare the plan including community outreach is estimated to be \$200,000 and funding for this purpose is recommended in the Proposed 2007-2011 Traffic Capital Improvement Program. This master planning effort is patterned after similar efforts which recently led to increased funding for libraries (\$212 million), parks (\$228 million) and public safety facilities (\$159 million). Further information on the proposed scope and schedule for the Transportation Infrastructure Needs Master Plan is detailed in Attachment C.

### **CONCLUSION**

The near-term investment of \$5.3 million would make much needed progress towards addressing the backlog of infrastructure rehabilitation and capital improvements, and slow the deterioration of the condition of the City's surface transportation system. Proposed funding is spread effectively between investments in future cost avoidance, safety improvements, and neighborhood aesthetics, so that the benefits to the City are maximized.

In addition, a long-term strategy for increased transportation infrastructure funding from regional and local sources has been developed in coordination with the City Council's Building Better Transportation Committee. This strategy includes continued advocacy for increased regional funding and the initiation of a \$200,000 transportation master plan that will include presenting updated needs to the community, the identification of community priorities, and local funding options to potentially deal with the transportation infrastructure backlog.

### **COORDINATION**

This memorandum has been coordinated with the City Manager's Budget Office.

/s/

JAMES R. HELMER, Director  
Department of Transportation

Attachments

## **Transportation Infrastructure Maintenance Backlog Reserve - Investment Plan**

Staff is recommending that the \$5.3 million be allocated in a way that maximizes the benefit to the City's transportation system. The majority of the reserve is proposed to be spent on pavement maintenance to avoid much more costly future repairs, and the balance is proposed to address safety-related transportation issues as well as the appearance of transportation assets in neighborhoods. The recommended expenditure plan is as follows:

### **Future Cost Avoidance**

**Pavement Maintenance** (\$3,000,000) – Pavement is the City's largest transportation asset, and it currently has the largest one-time backlog of deferred maintenance (\$229 million) and the largest annual maintenance deficit ranging from \$13 million to \$17 million over the next five years, depending on federal and state funding levels. Nearly 20% of streets are not in acceptable condition. This proposed addition would resurface about nine miles of deteriorated streets, vastly improving their safety and ride-ability and avoiding even more costly repairs in the future.

### **Safety Enhancements**

**New Traffic Signals** (\$700,000) – This City has identified about 68 intersections throughout the City that warrant a traffic signal due to significant safety issues and traffic flow problems, but available capital funding can only build a fraction of these signals. This funding would allow for the construction of two new signals, reducing accidents as well as congestion.

**Traffic Signal Modifications** (\$650,000) – While there are many intersections that warrant new signals, funding for maintenance and operations for the City's 877 existing signals is insufficient, so recently staff has focused much of the available resources on modifying and rehabilitating existing signals to improve safety and reduce congestion without increasing the overall inventory and associated maintenance costs. Currently, around 12 existing signals warrant left turn phasing or other rehabilitation due to significantly high crash rates and traffic flow issues. In many cases, the safety concerns at these intersections rank them higher than intersections with no signals. This additional funding would allow for two of these existing signals to be modified, reducing head-on and broadside crashes and reducing congestion throughout the City, without increased maintenance and operations costs.

**Closing Sidewalk Gaps** (\$450,000) – The City currently has a significant backlog of sidewalk gaps. Staff has identified over \$2 million in projects to close a small number of those gaps. Nearly \$750,000 of this work will be funded by grants, but over \$1.25 million remains unfunded, and several of the unfunded projects will complete walking

routes to school. This additional funding would allow for 6 sidewalk projects to be built throughout the City.

### **Neighborhood Appearance**

**Seasonal Streetlight Outage Repairs** (\$100,000) – The average timeliness of streetlight repairs is projected to fall to 38% within 7 days in 2006-2007 due to the cumulative impact of prior budget reductions and vacancies. Each winter, the backlog of streetlight outages increases dramatically as darkness lasts longer and residents are more apt to notice and report outages. As a result, the response rate drops from 50% to 28% repaired in 7 days after the end of daylight savings time, and some residents have to wait up to 6 weeks for lights to be repaired. This funding would allow 60% of repairs to be made within 7 days, and provide a proactive focus in the downtown, creating a more inviting environment that supports efforts to drive the economy.

**Landscape Renovations** (\$300,000) – The condition of the City's 228 acres of street landscaping is projected to drop from 68% to 66% in good condition next year. This investment will allow for 4-5 acres of existing landscaping to be renovated to current City design standards that are attractive and easier to maintain, and prevent the overall landscape condition from dropping in 2006-2007.

**Street Tree Infill** (\$100,000) – This City's urban forest is missing 30,000 - 60,000 trees. This funding would allow for the replacement of 600 trees throughout the City, reducing tripping hazards resulting from empty tree wells, providing shade for improved walking conditions and environmental benefit, and overall improving the aesthetics of neighborhoods.

## Transportation System Scope and Funding Shortfall

The City's transportation system consists of various infrastructure assets that include:

| <b>TRANSPORTATION ASSETS</b>   |
|--|
| <ul style="list-style-type: none"> <li>• 2,310 miles of paved streets</li> <li>• 152 bridges</li> <li>• 877 traffic signals</li> <li>• 87,000 signs</li> <li>• 5.4 million square feet of roadway markings</li> <li>• 58,000 streetlights</li> <li>• 508 acres of landscaping</li> <li>• 340,000 street trees</li> </ul> |

In summary, based on the next five year forecast period, the Department of Transportation has estimated the magnitude of the City's transportation needs to be:

| <b>ANNUAL TRANSPORTATION SHORTFALL</b>  |
|---|
| <p><b>\$18 - \$25 million shortfall for annual operating and maintenance costs</b> (Increased amount over existing funding)</p> <ul style="list-style-type: none"> <li>• \$13 - \$17 million for pavement maintenance</li> <li>• \$1.1 million for traffic signal systems maintenance and operations</li> <li>• \$0.3 million for roadway markings and striping maintenance</li> <li>• \$1.2 million for sidewalk repair grants</li> <li>• \$0.4 million for street light maintenance</li> <li>• \$1.1 million for street landscaping maintenance</li> <li>• \$1.5 million for tree trimming</li> <li>• \$0.4 million for traffic control and street name sign maintenance</li> <li>• \$2.0 million for Downtown and Neighborhood Business District cleaning and maintenance</li> </ul> |

| <b>TRANSPORTATION MAINTENANCE BACKLOG</b>  |
|--|
| <p><b>\$370 million shortfall for one-time rehabilitation and capital costs</b></p> <ul style="list-style-type: none"> <li>• \$229 million for pavement maintenance (\$175 million for resurfacing; \$20 million for street reconstruction; \$34 million for other sealing treatments)</li> <li>• \$50 million for curb ramps</li> <li>• \$31 million for new street lighting</li> <li>• \$26 million for median island landscaping</li> <li>• \$18 million for curb and gutter repair</li> <li>• \$16 million for traffic signal systems</li> </ul> |

## **Transportation Infrastructure Maintenance Needs Master Plan**

The Capital Facilities Financing Strategy presented to the City Council in 2000 considered infrastructure needs of Libraries, Parks and Recreation, Police, Fire, and Transportation. The City Council has taken effective action to address needs in many of these areas. Transportation facilities are one of the few remaining assets that have not received a much needed funding infusion.

Efforts are proposed to develop a Transportation Infrastructure Maintenance Needs Master Plan similar to those developed by the Library, and the Parks and Community Center Systems. The Master Plan process will engage the community to understand needs and priorities, and identify their level of support to fund the various priorities and strategies to implement the Master Plan.

DOT staff would oversee the Master Plan process and secure a transportation consultant to perform the analysis and assist with community outreach with funding proposed in the 2007-2011 Proposed Traffic Capital Improvement Program. The scope and schedule of the Master Plan is proposed as follows:

| <b>Master Plan Tasks</b>   | <b>Date</b>             |
|--|-------------------------|
| <input type="checkbox"/> Scope development and procurement process                   | July – September 2006   |
| <input type="checkbox"/> Initiate Master Plan  | September 2006          |
| <input type="checkbox"/> Update current transportation conditions and service levels | October – December 2006 |
| <input type="checkbox"/> Update current needs and funding levels                     | October – December 2006 |
| <input type="checkbox"/> Status Report to BBT (prior to community outreach process)  | December 2006           |
| <input type="checkbox"/> Community outreach process                                  | January – April 2007    |
| <input type="checkbox"/> Status Report to BBT (after community outreach process)     | May 2007                |
| <input type="checkbox"/> Developing funding and implementation strategies            | June – August 2007      |
| <input type="checkbox"/> Recommendations to BBT                                      | Fall 2007               |
| <input type="checkbox"/> Recommendations to City Council                             | Fall 2007               |

The process is designed to gather technical and system information at the outset of the process, and develop a community outreach plan. The outreach plan would be presented to the BBT Committee in December 2006 as part of a broader status report on the Master Plan. The lengthiest element of the Master Plan is community outreach. At the conclusion of the community outreach phase, the BBT Committee would receive a second status report. The Master Plan is expected to be completed by the fall of 2007.